

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Fishpot Creek

Water Body Segment at a Glance:

County:	St. Louis
Nearby Cities:	Valley Park
Length of impaired segment:	2 miles
Pollutant 1:	Bacteria
Source 1:	None given
Pollutant 2:	Low Dissolved Oxygen
Source 2:	Urban Nonpoint Source
Water Body ID:	2186



State Map Showing Location of Watershed

Scheduled for TMDL development: Bacteria in 2011 and dissolved oxygen in 2014

Description of the Problem

Beneficial uses of Fishpot Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation – Category B

Use that is impaired

- Protection of Warm Water Aquatic Life
- Whole Body Contact Recreation – Category B

Standards that apply

- In the Missouri Water Quality Standards, found in 10 CSR 20-7.031 Table A, the criterion for dissolved oxygen, or DO, in streams is a minimum of 5 mg/L (milligrams per liter or parts per million).
- The criteria for bacteria are found at 10 CSR 20-7.031(4)(C), where it states that the *E.coli* bacteria count shall not exceed 126 colonies per 100 milliliters of water (126 col/100 mL) for Category A and 206 col/100 mL for Category B waters. This count is the geometric mean during the recreational season (April 1- October 31) in waters designated for whole body contact recreation.

Background information and water quality data

Fishpot Creek is a small stream that flows east and southeast into the Meramec River near St. Louis. It is designated as Category B for the whole body contact recreation use, which means it has places deep enough for total immersion (i.e., swimming), but they may be on private lands or inaccessible to the public. The impairments are based on data gathered by the U.S. Geological Survey from 2000 to 2004.

Water quality conditions in Fishpot Creek are not protective of aquatic life. Dissolved oxygen is important as many aquatic organisms require high levels of oxygen to survive and, in the case of Fishpot Creek, six of 30 samples (20 percent) gathered between 2002 and 2004 did not meet the water quality criterion. For dissolved oxygen, if more than 10 percent of measurements in a water body fail to meet the water quality criterion that water body is judged to be impaired.

Excessive amounts of fecal bacteria in surface water used for recreation are an indication of an increased risk of pathogen-induced illness to humans. Infections due to pathogen-contaminated waters include gastrointestinal, respiratory, eye, ear, nose, throat and skin diseases. *E. coli*, are bacteria found in the intestines of warm blooded animals and used as indicators of the risk of waterborne disease from pathogenic (disease causing) bacteria or viruses. Most *E. coli* strains are harmless, but some can cause serious illness in humans and are occasionally responsible for product recalls. The harmless strains are part of the normal flora of the intestines, and can benefit their hosts by preventing the establishment of pathogenic bacteria within the intestine^{1,2}. Missouri's bacteria criteria are based on specific levels of risk of acute gastrointestinal illness. The levels of risk correlating to these criteria are no more than eight illnesses per 1,000 swimmers in fresh water.

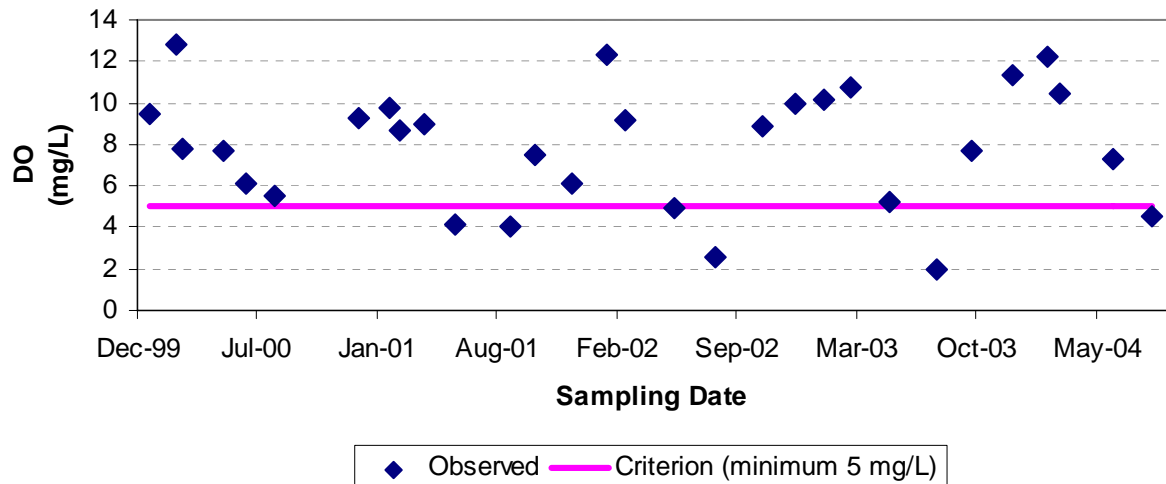
Using the USGS data from 2000-04, the geometric means of data collected during the 2000 and 2001 recreational seasons exceeded the bacteria criterion of 206 col/100 mL for Category B. The geometric mean of all recreational season data available from 2000-04 is 505 col/100 mL and also exceeds the category B criterion.

People can protect themselves from waterborne illness by avoiding contact with contaminated water. However, when swimming anywhere, it is wise to take commonsense precautions. These include washing hands before eating, showering after swimming and avoiding exposure to questionable water if you have open cuts or wounds.

¹ Hudault S, Guignot J, Servin AL (July 2001). "[Escherichia coli strains colonising the gastrointestinal tract protect germfree mice against Salmonella typhimurium infection](#)". *Gut* **49** (1): 47–55

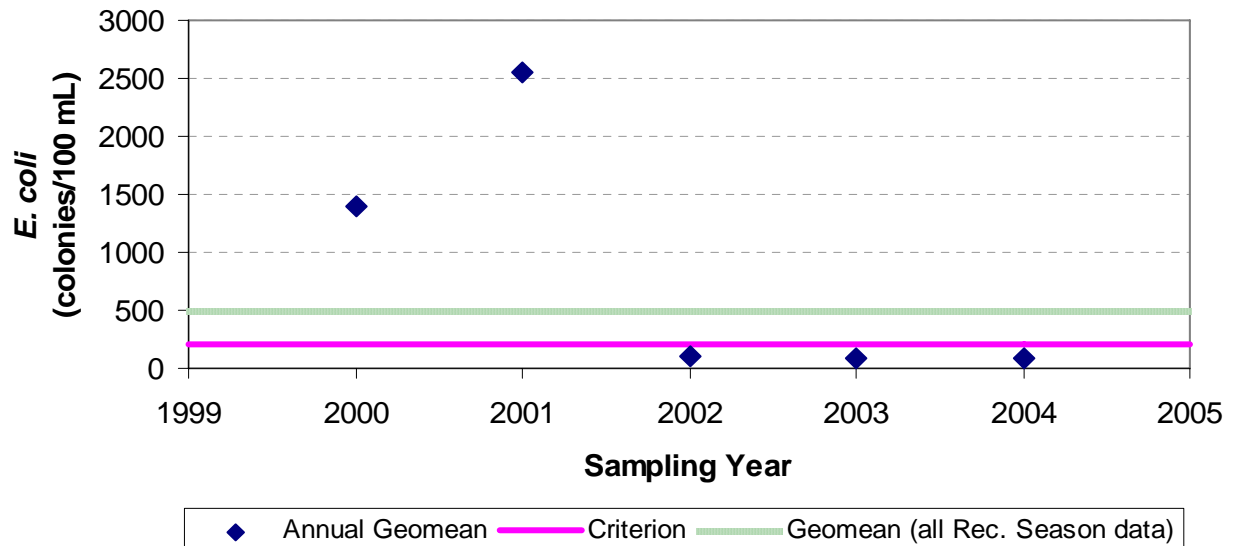
² Reid G, Howard J, Gan BS (September 2001). "Can bacterial interference prevent infection?". *Trends Microbiol.* **9** (9): 424–8.

Dissolved Oxygen (DO) Data for Fishpot Creek from 2000 - 2004

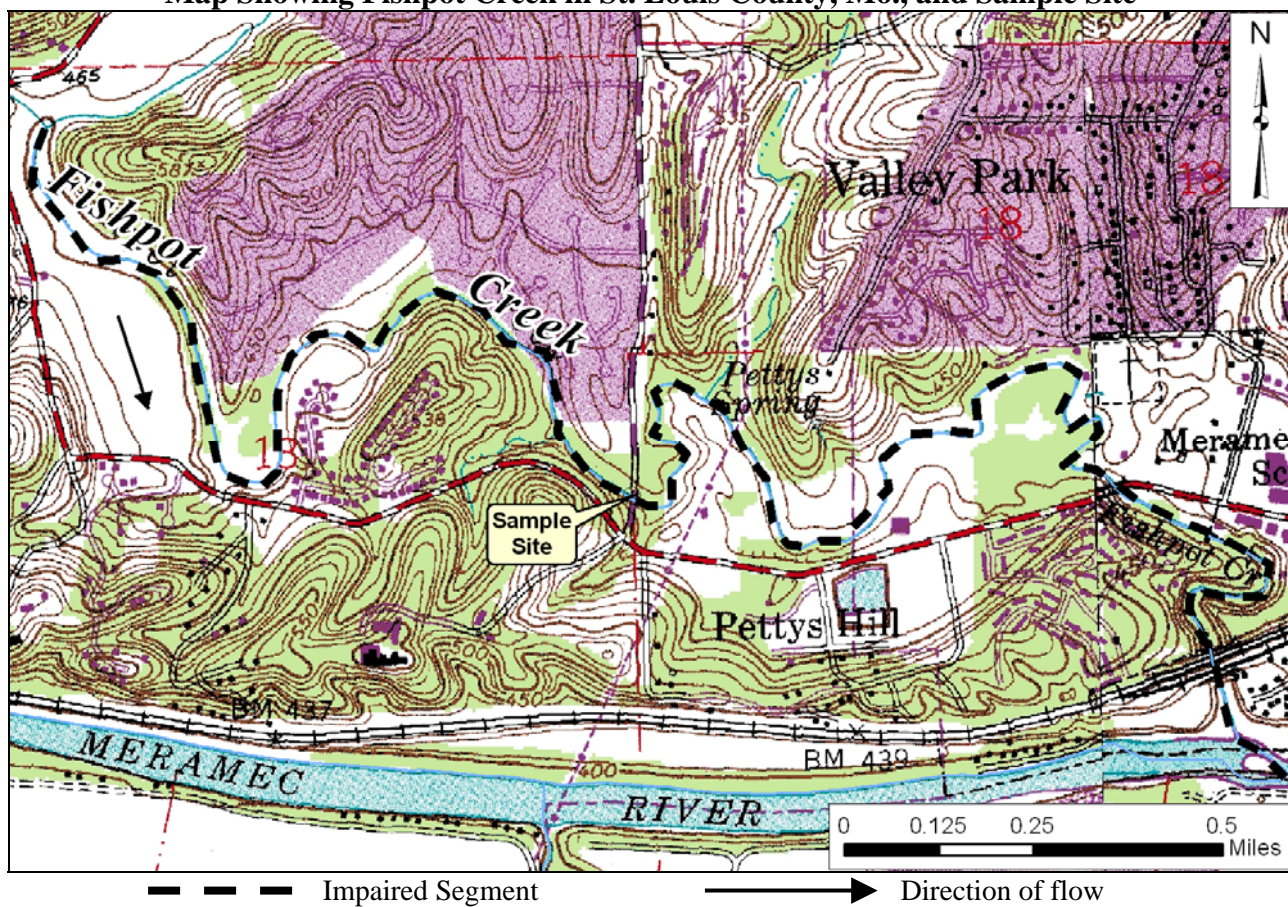


E. coli Data for Fishpot Creek (2000 - 2004 Recreational Season)

(all annual geomeans were calculated using fewer than five samples)



Map Showing Fishpot Creek in St. Louis County, Mo., and Sample Site



Sample Sites
Fishpot Creek at Valley Park

For more information call or write:

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